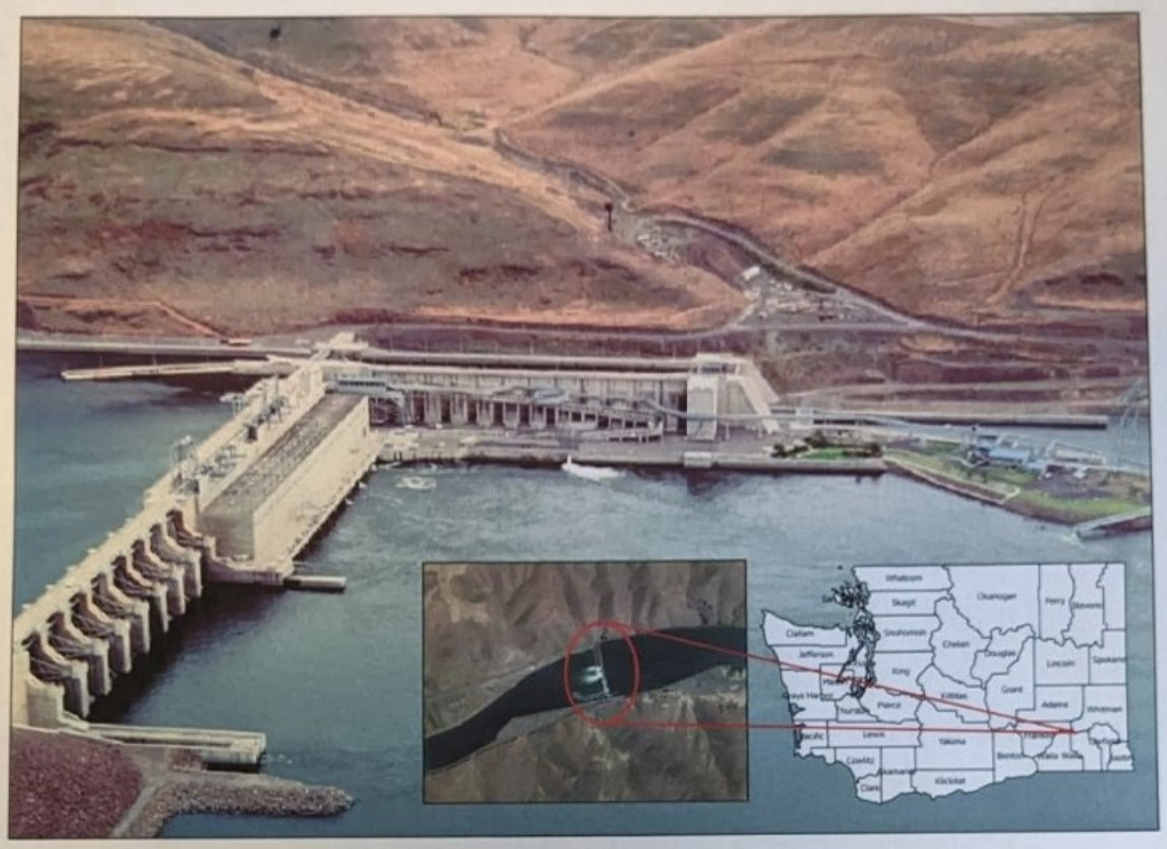

Oil Spill Contingency Plan

Little Goose Lock and Dam

Prepared on: 3 July, 2019

1.0 Introduction

1.1 Purpose and Scope

This Oil Spill Contingency Plan is prepared in accordance with 40 CFR 112.7(d) and 40 CFR Part 109 to address areas of the facility where secondary containment is impracticable, as documented in the facility Spill Prevention, Control and Countermeasure (SPCC) plan.

The purpose of this Contingency Plan is to define procedures and tactics for responding to discharges of oil into the Snake River originating from Little Goose Lock and Dam. The Contingency Plan will be implemented whenever a discharge of oil has reached or threatens the Snake River.

The objective of procedures described in this Contingency Plan is to protect the public, USACE employees and to minimize damage to the environment and natural resources from a discharge of oil. This Contingency Plan complements the prevention and control measures presented in Little Goose Dam's SPCC plan by addressing the possibility of a discharge and demonstrating Ice Harbor's preparedness for such a scenario.

This Contingency Plan follows the content and organization of 40 CFR 109 and describes the distribution of responsibilities and basic procedures for responding to an oil discharge and performing cleanup operations.

1.2 Resources at Risk

The Little Goose Project consists of Little Goose Dam, Powerhouse, navigation lock, fish ladders, and appurtenant facilities. The project provides navigation, hydroelectric generation, recreation, fish migration, and incidental irrigation.

The project is located near Starbuck, Washington about 10 miles Northeast. The 5,398 acre project includes a dam, powerhouse, reservoir lands, and recreation facilities. The powerhouse has six 135,000-kilowatt units with 810 megawatt total powerhouse capacity, which generate roughly 3 billion kilowatt hours annually.

The Little Goose Lock and Dam project also supports fish passage, operating one fish ladder for migrating salmon and steelhead. The navigation lock is an 86-foot wide by 668-feet long with a single-lift type system, of a 100-foot vertical lift. The lock is just one component of the Columbia-Snake River System that transports cargos primarily consisting of grains, petroleum products, fertilizers and wood products between Lewiston, Idaho, and the Pacific Ocean.

1.3 Risk Assessment

Oil storage at the facility can be classified in three groups; 1) Oil-filled operating equipment, 2) Above Ground Storage Tank (ASTs) and, 3) Portable Storage Containers (PSCs). The majority of oil stored at the facility is inside the oil-filled operating equipment. Six transformers sit on top of the roof of the powerhouse. The oil storage capacity for all six transformers is approximately 80,000-gallons of transformer oil. Two Station Service Transformers are located in the Powerhouse interior on the fourth floor in separate rooms with vaulted containment at Elevation 558 feet and can house approximately 2,550 gallons of transformer oil; there are up to approximately 55,000 gallons of turbine oil stored within the 6 generating units. There is the capacity for approximately 60,000 gallons of bulk turbine and transformer oil to be stored in ASTs in the Oil Storage Room on the first floor (El. 498). There is approximately 3,100 gallons of hydraulic oil in the headgate hydraulic system. The headgate cylinders sit directly over and in the water. Other ASTs on the facility include a 530 gallon diesel emergency generator, 1,000-gallon gasoline fuel storage tank and a number of smaller tanks which fuel individual pieces of equipment. Underneath the fish ladder there is also two 1,000 gallon used oil storage tanks. The facility also utilizes an assorted amount of petroleum products, which are stored in 55-gallon drums and other PSCs.

A small or medium discharge is deemed most probable and would most likely come from oil-filled operating equipment as none of it has passive secondary containment. A slow leak, over-fill event, or equipment failure that releases oil directly to the river, or first into the drainage sump is the most likely scenario. For planning purposes, the worst-case discharge is assumed to be a turbine hub failure, releasing 2,500 gallons of turbine oil or headgate failure releasing 500 gallons. The turbine hub is directly in the water and secondary containment is impracticable. The transformers have secondary containment but the drains, which go into the drainage sump, are not plugged because of safety reasons.

All six main units lack adequate secondary containment for the oil filled operating equipment such as thrust bearings, guide bearings, main bearings and governor system. See Appendix A, Little Goose's SPCC plan, "Table 3.1 – Powerhouse Containers and Oil-Filled Operating Equipment" for a detailed list of equipment and volumes. If a failure or overflow event occurred, turbine oil could be discharged into the drainage sump though floor drains or by the turbine pit pumps.

The head gate hydraulic system lacks secondary containment as well. A leak from the cylinders would go directly into the gate slots. The reservoir tanks and piping also lack secondary containment. A leak from the tanks or piping would most likely find its way to an internal drain which leads to the drainage sump. See Appendix B, Little Goose Dam's SPCC plan, "Table 3.2 – Potential Discharge Volumes and Flow Direction of Powerhouse Containers & Oil-Filled Operating Equipment".

1.4 Response Strategy

Little Goose personnel are equipped and trained to respond to incidental spills and worst case scenario that affect the Snake River. Incidental spills can generally be described as those where the quantity of product discharged is small, the discharged material can easily be stopped and controlled, the discharge is localized, and the product is not likely to reach the river. Active spill response procedures for these incidental spills are covered in the "Spill Response" column of Appendix A, Little Goose's SPCC plan, "Table 3.1 – Powerhouse Containers and Oil-Filled Operating Equipment".

Little Goose personnel are equipped, trained and authorized to respond to worst-case discharges. Little Goose has staged spill response equipment and has personnel trained on its use. See Appendix C, Little Goose's SPCC plan, "Table 10.2 – Spill Response Kit Inventory & Capacity Information". In addition, Little Goose can call in a spill response contractor to assist through the Walla Walla District Contracting Office.

2.0 Spill Discovery and Response

2.1 Distribution and Responsibilities

Little Goose Dam has the primary responsibility for providing the initial response to oil discharge incidents originating from its facilities. To accomplish this, Little Goose has established a Spill Response Team in the event of a discharge. This team will be comprised of a Person Responsible for Spill Prevention (PRSP), which will be the Environmental Compliance Coordinator, and alternate PRSP, as well as other qualified Little Dam personnel.

The Facility Response Team will initiate, support, and completely implement the response activities as needed. The degree of involvement from Little Goose personnel and outside spill response contractors will depend on the magnitude of the discharge. The Environmental Compliance Coordinator (ECC) will act as the Response Coordinator (RC) and will direct activities, Little Goose personnel, and outside contractors as needed. If the ECC is not available, the Co-Captain of the Spill Response Team will then act as the RC. The name and contact information for the ECC/Co-Captain of the Spill Response Team and other qualified personnel can be found in Appendix C, Little Goose SPCC plan, Section 2.2 "Emergency Contacts".

The Emergency Contacts section also contains the name and contact information for other local, state, and federal agencies as well as names and phone numbers of contracting personnel in the advent a spill contractor needs to be contacted in the advent of a major discharge.

The facility is staffed by an Operator 24/7 with normal business hours Monday-Thursday from 0630-1700. Operators and plant personnel who monitor and visually check oil filled operating equipment and will likely be the first individuals aware of a discharge. The following

procedures will be initiated by project personnel which will reduce the likelihood of an oil release reaching the river.

- Identification of a release of oil.
- If possible, secure and stop the release and use materials on had to contain spill.
- Notify the control room operator. The operator will notify the ECC.

If the oil spill has reached the water or the size warrants help from the spill response team, the Operator will:

- Assemble the Project Spill Response team.
- Identify the character, exact source, amount, and extent of the discharge if not already complete by first person on scene.
- Coordinate the prompt removal and containment actions using Project equipment and materials on site.
- If this is a reportable spill, notify and provide necessary information to the appropriate federal, state and District USACE authorities with designated roles, including the National Response Center, Washington State Department of Ecology, Washington State Emergency Management and District ECC.
- If the spill is determined by the ECC to be beyond the capabilities of the spill team, coordinate with the Operations Project Manager (OPM) to initiate calling in a spill contractor through the Walla Walla Contracting Office.
- Keep a record of the events resulting from the discharge through the completion of the spill cleanup.

The ECC plays a central coordinating role in the release of oil and has authority to coordinate the response activities of the Project spill response team. The ECC will direct notifications and initial response actions in accordance with training and capabilities. In the advent of an incident which warrants assistance from a spill contractor, the OPM or acting OPM will initiate coordination with the Walla Walla Contracting Office.

Finally, the ECC serves as the coordinator for communications by acquiring essential information and ensuring clear communication of information to spill response personnel, OPM and District ECC. The ECC has access to reference material at the Project either as printed material or on computer files that can further assist the response activities.

2.2 Response Activities

In the advent of a discharge, the first priority is to ensure the safety of personnel and stop the product flow, followed by the containment, control and mitigation of the discharge. The Contingency Plan breaks down actions to be performed in response to an oil discharge into different phases, described in greater detail in the checklists below.

2.3 Discharge Discovery and Source Control

Minor or Incidental Discharge. A minor or incidental discharge will be discovered by an operator and maintenance personnel during daily scheduled inspections. Equipment, tanks and piping are inspected monthly and annually as outline in the facilities Oil Accountability Plan and Spill Prevention Control and Countermeasure (SPCC) plan.

Medium and Worst-Case Discharge. A more sever and sudden discharge will be detected by Project personnel or equipment alarms. The maximum amount of time until a major discharge is detected would by usually be less than an hour.

Notifications to the NRC and state authority must occur immediately upon a discovery of reportable discharge. A reportable discharge is any that causes a sheen or film upon or discoloration of the surface of water, cause a sludge or emulsion to be deposited beneath the surface of the water, or violate applicable water quality standards.

Completed	Actions
	Immediately report the discharge to the PRSP, providing the following information: Exact location, Material involved and Quantity; Circumstances that may hinder response.
	Locate the source of the discharge.
	If safe to do so, isolate the source of the leak and initiate containment.

2.4 Assessment and Notifications

Completed	Actions
	Investigate the discharge to assess the actual or potential threat to human health and/or the environment: Location of the discharge relative to receiving water or floor drains; Quantity of spilled material; Ambient conditions (temperature, rain); Other contributing factors such as fire, confined space, hazardous energy control, etc.
	Immediately notify: The control room and PSRP; PSRP or control room notify NRC, Ecology, Emergency Mgt., OPM and District ECC.

2.5 Control and Recovery

The ECC directs the initial control of the release by Little Goose Dam personnel. The action taken will depend on whether the oil has reached water, the facilities drainage system or

remains contained within the dam. All possible efforts will be made to prevent oil from reaching surface water. If oil has not yet reached water:

Competed	Actions
	Assemble the spill response team if needed.
	Deploy absorbent material around oil and drain blockers as needed.
	Implement countermeasures such as turning off pumps, raising level of sumps, inspecting drainage pathways, monitoring oil levels and ensuring oil skimmer is functioning if oil has reached the drainage sump.

The focus of recovery of the discharge for these actions would be in the immediate vicinity of the discharge and the primary method of recovery would be from absorbent material.

If oil has reached water:

Completed	Actions
	Assemble the spill response team.
	Identify the character, exact source, amount, and extent of the discharge if not already complete by first person on scene.
	PSRP or control room notify NRC, Ecology, Emergency Mgt., OPM and District ECC.
	Launch boats, booms, drum skimmer and other equipment as necessary.
	Deploy protective booming measures downstream at Geographical Response Plans (GRPs) if necessary.
	OPM contact a spill cleanup contractor through the District Contracting Office if needed.
	Stand up Incident Command System if warranted.

2.6 Disposal of Recovered Product and Contaminated Response Material

The ECC ensures that all contaminated materials are disposed of in accordance with all applicable solid and hazardous waste regulations.

Completed	Actions
	Place any recovered product that can be recycled into a tank to be separated and recycled.
	Dispose of recovered product not suitable for on-site recycling.
	Dispose of contaminated material in accordance with all applicable sold and hazardous waste regulations ensuring material properly packaged and labeled.

2.7 Termination

The ECC ensures that cleanup has been completed and an internal spill report is filled out and sent to the District ECC.

Completed	Actions
	Within 7 days of the discharge, submit the Spill Report to the District ECC.
	OPM ensures that all repairs to the defective equipment have been completed before returning to service.
	Review circumstances that led to the discharge and suggest necessary precautions to prevent a recurrence.
	Evaluate the effectiveness of the response activities and make adjustments as necessary to response procedures, personnel training and additional equipment.
	If required submit the following report: 40 CFR 112.4(a) In the case where the discharge (as defined in 40 CFR 112.1(b)) was greater than 1,000 gallons or was the second discharge of 42 gallons or more within any 12-month period, the PRSP is responsible for submitting the required information within 60 days to the EPA Regional Administrator.

2.8 Discharge Notification

Instructions and phone numbers for reporting a discharge to the National Response Center and other state authorities are provided in Little Goose Dam's SPCC plan, Appendix D "Spill Report Form, Contact Phone Numbers, and Phone Log". Any discharge to the water must be reported immediately to the NRC. The PRSP is responsible for making or directing notification.

If the discharge qualifies under 40 CFR 112.1(b) discharge greater than 1,000 gallons or was the second discharge of 42 gallons or more within any 12-month period the PRSP is responsible for ensuring that all pertinent information is provided to the EPA Regional Administrator.

3.0 Response Resources and Preparedness Activities

3.1 Equipment, Supplies, Services, and Manpower

In the event of a discharge, Little Gooses spill response equipment is stored on site. A list of equipment is included in Appendix C, Little Gooses SPCC plan, "Table 10.2 – Spill Response Kit Inventory & Capacity Information". The material is sufficient to respond to minor and medium case discharge scenarios occurring at the facility. The response equipment may also be sufficient to respond to a worst case discharge as well. In the advent it is insufficient, an outside spill contractor will be mobilized to aid in the response. The response equipment is verified monthly or as described in the facilities SPCC plan and is replenished as needed.

The operators and maintenance personnel at Little Goose Dam are equipped and trained to respond to incidental spills upon discovery. During business hours, the Ice Harbor spill team can mobilize less than 1 hour to respond to larger spills. Within the powerhouse, any leaks from oil filled equipment would eventually find its way to the drainage sump which is equipped with a leak wise oil detection system and a belt skimmer. This would greatly reduce the chance for oil to be released to the river.

3.2 Access to Receiving Water Body

The water body to be affected by a discharge is the Snake River as Little Goose Dam spans from shore to shore. In the advent a discharge reaches the Snake River, the response strategy consists of deploying oil containment boom downstream to prevent the migration of the plume downriver if warranted. Geographical Response Plans have been developed and will be utilized during a major spill event. See Appendix I.

USACE owns the property along the shoreline and has access to boat launches downstream. The PRSP and facility response team are familiar with the local area and access areas to the Snake River.

3.3 Communications and Control

A coordination system will be set up in the event of a major discharge and will be based in the control room at Little Goose. The control room is equipped with a variety of fixed and mobile communication equipment to ensure continuous communication with Ice Harbor management, PRSP, responders, and authorities. The communication system includes computers, land line telephones, cell phones and two way radios to coordinate response activities.

The PRSP is responsible for communicating the status of the response operations and for sharing relevant information with USACE management, local and federal authorities.

In the event that local responders, Ecology responders or Federal On Scene Coordinator (FOSC) assumes Incident Command, the Little Goose OPM will function as the IC in Unified Command and the PRSP as the liaison.

3.4 Training Exercises and Updating Procedures

Little Goose Dam has established and maintains an ongoing training program to ensure that facility personnel responding to oil discharges are properly trained and that all necessary equipment is available and in working condition. All new Little Goose maintenance personnel receive training on proper handling of oil products to prevent a discharge at the facility.

The ECC conducts annual SPCC briefings in accordance with training requirement outlined in 40 CFR 112. The annual briefings include responsibilities of personnel and the ECC, spill prevention regulations and requirements, the contents of the Little Goose SPCC plan, contents of the Little Goose Oil Spill Contingency Plan including spill reporting requirements and a history of spill events at the facility.

Following a response to an oil discharge, the ECC will evaluate the actions taken and identify procedural areas where improvements are needed. The ECC will conduct a briefing with spill response personnel and others involved with incident to discuss lessons learned and will integrate the outcome of the discussion in subsequent SPCC briefings and employee training. As necessary, the ECC will amend this Contingency Plan or the SPCC Plan to reflect changes made to facility spill response procedures. A P.E. will certify any technical amendments to the SPCC plan.